



RFID Technology Issues



Interactive discussion.

Intended to elicit comments and questions to lead towards White Paper outline.

Discussion Topics

- Security Discussion
- Site Preparation Issues
- Tag Selection & Placement



RFID Security



- RFID systems are similar to wireless networks in terms of security vulnerabilities
- Attacks fall into two categories
 - ◆ Passive
 - Attacker “listens”
 - ◆ Active
 - Deliberate, malicious actions



RFID Security - Passive



- Same threat as barcode & human readable
- Tag Contents are:
 - ◆ Pallet/Case/UID + CAGE + Serial Number
 - ◆ Add Part Number if using EPC Global format

RFID Security - Active



- Same threat as barcode & human readable
- New Standards (Class 1, Gen 2) provides improved security:
 - ◆ Much longer passwords for:
 - Query Tag Data
 - Kill Tag
 - Lock Tag Data (Permanent or Temporary)
 - ◆ Better data encryption



Site Preparation Issues



- Risks:
 - ◆ Bi-directional Interference
 - ◆ Human exposure
- Passive RFID operates in a range of 20 ft or less
 - ◆ Suggest site survey only when site inspection reveals need
- Printer, Mobile, Stationary Options

Tag Selection & Placement



- Tag Selection
 - ◆ Different antenna configurations = performance differences
 - ◆ Start with “middle of the road” tag and change tag if needed
 - ◆ Test thoroughly in pilot study

Tag Selection & Placement



- Tag Placement
 - ◆ Mil-Std 129 dictates placement of carton markings
 - ◆ RFID is affected by fluids and metals
 - ◆ Corrugated cartons are easy
 - ◆ Test thoroughly

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- Questions
- Concerns
- Action Items

